

LOG OF MEETING

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SUBJECT: Permissible Cord- and Plug-Connected Loads for 15- and 20-Ampere Electrical Branch Circuits.

DATE: July 14, 1999

PLACE: 333 Pfingsten Road
Northbrook, IL

DATE OF LOG ENTRY: July 16, 1999

SOURCE OF LOG ENTRY: William H. King, Jr., ES *WHK*

CPSC PARTICIPANT: William H. King, Jr., ES

NON-CPSC PARTICIPANTS:

John Kovacik, Underwriters Laboratories Inc. (UL)
Mark Leimbeck, UL
David Peot, Ryobi Power Tool Group (rep the Power Tool Institute)
E. Donald Fiedler, Emerson Tool Company
Jack Weizeorick, Assoc. of Home Appliance Mfrs. (AHAM)
Julie Ayres, AHAM
James Pearse, Leviton Mfg. Co., Inc. [rep the National Electrical Mfrs. Assoc. (NEMA)]
Randolph Maxwell, Helen of Troy L.P.
Thomas Harman, University of Houston Clear Lake
Robert Wilkinson, Independent Electrical Contractors

CPSC/OFFICE OF
THE SECRETARY
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SUMMARY:

This meeting was convened to resolve the electrical safety problem identified by the CPSC engineering staff. Representing the CPSC staff was William King, Chief Engineer for Electrical and Fire Safety.

Testing laboratories, such as Underwriters Laboratories (UL), have been certifying electrical consumer products in conflict with the words of the National Electrical Code (NEC) which has led to overloading circuits in residences. Overloading circuits increases the risk of electrical wiring fires.

The recent case in point was the listing by UL of hair dryers rated 1875 watts, which is significantly above the 1440 watt limit, based on NEC para. 210-23(a), which states that a single, cord- and plug-connected product can not exceed 80 percent of the branch circuit rating. (80% X 120 volts X 15 amps = 1440 watts) The NEC limit provides some extra electrical capacity to permit other loads, such as electric room lighting, to be on the same circuit without resulting in an overload condition.

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UL indicated that it had done so because it considered the hair dryer to be a non-continuous load. CPSC staff responded that NEC para. 210-23(a) makes no such exception; and that CPSC staff experience was that intermittent loads such as hair dryers stress electrical wiring circuit components such as splices and terminations greater than continuous loads.

In an effort to resolve the conflict, the NEC Committee organized this meeting of concerned parties. At the meeting, Mr. King proposed, and the assembled group concurred with, additional language to be added to the next edition of the NEC. The proposal would add words to the existing sentence in para. 210-23(a) as follows:

“The rating of any one cord- and plug-connected utilization equipment shall not exceed 80 percent of the branch-circuit ampere rating”, unless listed and marked to inform the user of the necessity for providing an individual branch circuit. (New words underlined.)

The additional words are intended to correct and prevent listings of electrical consumer products that exceed the 80 percent rule for use with convenience receptacle outlets on general-purpose 15- and 20-ampere branch circuits. An individual branch circuit is defined in the NEC as one that supplies only one appliance.